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HANDPIECE FOR TREATMENT OF TISSUE

Cross-Reference to Related Applications

This application is a continuation-in-part of U.S. Serial No. 09/522,275, filed 09-Mar-2000, ^{now US Patent No. 6,413,265} which claims priority to U.S. Application No. 60/123,440, filed March 9, 1999, both of which are fully incorporated herein by reference.

Field of the Invention

This invention relates generally to a handpiece for treating tissue, and more particularly, to an RF electrode handpiece for treating skin and underlying tissues.

Description of Related Art

The human skin is composed of two elements: the epidermis and the underlying dermis. The epidermis with the stratum corneum serves as a biological barrier to the environment. In the basilar layer of the epidermis, pigment-forming cells called melanocytes are present. They are the main determinants of skin color.

The underlying dermis provides the main structural support of the skin. It is composed mainly of an extra-cellular protein called collagen. Collagen is produced by fibroblasts and synthesized as a triple helix with three polypeptide chains that are connected with heat labile and heat stable chemical bonds. When collagen-containing tissue is heated, alterations in the physical properties of this protein matrix occur at a characteristic temperature. The structural transition of collagen contraction occurs at a specific "shrinkage" temperature. The